WHAT IS CLAIMED IS:

1. A document printing control apparatus for converting
a document format file whose print layout is not determined

5 to a document format file whose print layout is determined
to make a printer perform printing, said document printing
control apparatus comprising:
     first determination means for determining a size of
an output area in accordance with an output paper size;

10   second determination means for determining sizes of
individual blocks in the output area and for determining
font sizes in the individual blocks, according to the size
of the output area determined by said first determination
means;

15   first placement means for placing the blocks and
characters with the sizes determined by said second
determination means;
     editing means for editing a layout of at least one block
placed by said first placement means; and

20   second placement means for placing the blocks and
characters in accordance with the layout edited by said
editing means.

2. The document printing control apparatus as claimed in

25 claim 1, wherein said editing means comprises:
     designation means for specifying one of the blocks
placed by said placement means;

decision means for making a decision as to whether the block specified by said first designation means is a text area; and

revision means for revising the size of the text area
5 or the font size in the text area, when said decision means makes a decision that the specified block is the text area.

3. The document printing control apparatus as claimed in claim 2, wherein said second placement means comprises
10 acquisition means for obtaining the font size in accordance with a ratio between widths of the text area before and after the revision, and wherein characters with the font size obtained by said acquisition means are placed in the text area after the revision.

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4. A document printing control method of converting a document format file whose print layout is not determined to a document format file whose print layout is determined to make a printer perform printing, said document printing
20 control method comprising:

a first determination step of determining a size of an output area in accordance with an output paper size;

a second determination step of determining sizes of individual blocks in the output area and of determining
25 font sizes in the individual blocks, according to the size of the output area determined by the first determination step;

a first placement step of placing the blocks and characters with the sizes determined by the second determination step; and

a second placement step of placing, when at least one
5   block placed has its layout edited, the blocks and characters in accordance with the layout edited.

5.   The document printing control method as claimed in claim
4, wherein said second placement step comprises an
10 acquisition step of obtaining the font size in accordance with a ratio between widths of a text area before and after a revision, and wherein characters with the font size obtained by said acquisition step are placed in the text area after the revision.

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6.   A computer readable recording medium storing a program causing a computer to execute the program of converting a document format file whose print layout is not determined to a document format file whose print layout is determined
20 to make a printer perform printing, said program comprising:

a first determination procedure of determining a size of an output area in accordance with an output paper size;

a second determination procedure of determining sizes of individual blocks in the output area and of determining
25 font sizes in the individual blocks, according to the size of the output area determined by the first determination procedure;

a first placement procedure of placing the blocks and characters with the sizes determined by the second determination procedure; and

a second placement procedure of placing, when at least

5 one block placed has its layout edited, the blocks and characters in accordance with the layout edited.

7. The computer readable recording medium as claimed in claim 6, wherein said second placement procedure comprises

10 an acquisition procedure of obtaining the font size in accordance with a ratio between widths of a text area before and after a revision, and wherein characters with the font size obtained by said acquisition procedure are placed in the text area after the revision.

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8. A document printing control apparatus for converting a document format file whose print layout is not determined to a document format file whose print layout is determined to make a printer perform printing, said document printing

20 control apparatus comprising:

first determination means for determining a size of an output area in accordance with an output paper size;

second determination means for determining a block size in the output area and for determining a font size in the

25 block, according to the size of the output area determined by said first determination means; and

scaling means for scaling the block size and font size

in accordance with the block size and font size determined by said second determination means.

9. The document printing control apparatus as claimed in
5 claim 8, wherein said scaling means comprises:
       scaling factor determination means for determining a scaling factor of the block size and the font size determined by said second determination means;
       calculation means for calculating font sizes of
10 individual blocks in accordance with the scaling factor determined by said scaling factor determination means;
       decision means for making a decision as to whether a minimum font size of the font sizes calculated by said calculation means is greater than a predetermined font size;
15 and
       means for calculating a scaling factor for increasing the minimum font size to the predetermined font size, when said decision means makes a decision that the minimum font size is smaller than the predetermined font size.
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10. The document printing control apparatus as claimed in claim 8, further comprising typeface substitution means for replacing the font subjected to the scaling by said scaling means by an alternative typeface.
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11. The document printing control apparatus as claimed in claim 10, wherein said typeface substitution means

replaces a Mincho typeface by a Gothic typeface.

12. A document printing control method of converting a document format file whose print layout is not determined to a document format file whose print layout is determined to make a printer perform printing, said document printing control method comprising:

a first determination step of determining a size of an output area in accordance with an output paper size;

a second determination step of determining a block size in the output area and for determining a font size in the block, according to the size of the output area determined by said first determination step; and

a scaling step of scaling the block size and font size in accordance with the block size and font size determined by said second determination step.

13. The document printing control method as claimed in claim 12, wherein said scaling step comprises:

a scaling factor determination step of determining a scaling factor of the block size and the font size determined in the second determination step;

a calculation step of calculating font sizes of individual blocks in accordance with the scaling factor determined by the scaling factor determination step;

a decision step of making a decision as to whether a minimum font size of the font sizes calculated by the

calculation step is greater than a predetermined font size; and

a step of calculating a scaling factor for increasing the minimum font size to the predetermined font size, when said decision step makes a decision that the minimum font size is smaller than the predetermined font size.

14. The document printing control method as claimed in claim 12, further comprising a typeface substitution step of replacing the font subjected to the scaling in the scaling step by an alternative typeface.

15. The document printing control method as claimed in claim 14, wherein the typeface substitution step replaces a Mincho typeface by a Gothic typeface.

16. A computer readable recording medium for storing a program causing a computer to execute the program of converting a document format file whose print layout is not determined to a document format file whose print layout is determined to make a printer perform printing, said program comprising:

a first determination procedure of determining a size of an output area in accordance with an output paper size;

a second determination procedure of determining a block size in the output area and for determining a font size in the block, according to the size of the output area

determined by the first determination procedure; and

a scaling procedure of scaling the block size and font size in accordance with the block size and font size determined by the second determination procedure.

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17. The computer readable recording medium as claimed in claim 16, wherein said scaling procedure comprises:

a scaling factor determination procedure of determining a scaling factor of the block size and the font size

10   determined by the second determination procedure;

a calculation procedure of calculating font sizes of individual blocks in accordance with the scaling factor determined by the scaling factor determination procedure;

a decision procedure of making a decision as to whether

15   a minimum font size of the font sizes calculated by the calculation procedure is greater than a predetermined font size; and

a procedure of calculating a scaling factor for increasing the minimum font size to the predetermined font

20   size, when said decision procedure makes a decision that the minimum font size is smaller than the predetermined font size.

18. The computer readable recording medium as claimed in

25   claim 16, wherein the program causes the computer to execute a typeface substitution procedure of replacing the font subjected to the scaling in the scaling procedure by an

alternative typeface.

19.   The computer readable recording medium as claimed in claim 18, wherein the typeface substitution procedure replaces a Mincho typeface by a Gothic typeface.